



ATTORNEY DOCKET NO.: 051480-5016

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)

Stephan BOLZ.)

Application No.: 09/622,696)

Filed: 1 November 2000)

For: CONTROL SYSTEM FOR AN)
INTERNAL COMBUSTION ENGINE)

Group Art Unit: 3747

Examiner: Dolinar, A.

Commissioner for Patents
Box AF
Washington, D.C. 20231

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SEP 16 2002

TECHNOLOGY CENTER R3700

REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.116

Sir:

In reply to the final Office Action dated June 11, 2002, from the United States Patent and Trademark Office, the period for response to which continues to run through September 11, 2002, please reconsider the above-identified application in view of the following remarks.

Remarks

The final Office Action dated June 11, 2002, has been reviewed, and respectfully submitted in response thereto are the following remarks. Claims 1-16 are currently pending in the application, and are respectfully submitted for reconsideration by the Examiner. Entry of this reply is respectfully requested to place this application in condition for allowance, or at least in better form for appeal.

Claims 1, 2, 5, and 8-15 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,869,744 to Suzuki et al. (Suzuki). Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 4,668,873 to Ohba et al. (Ohba). Claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 5,161,087 to Frankeny et al. (Frankeny). Claims 6 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 4,214,472 to Maxwell et al. (Maxwell). And claim 7 was rejected under 35 U.S.C. 103(a) as being

*Reconsideration
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9/17/02
W. Brewer*

unpatentable over Suzuki in view of U.S. Patent No. 5,024,534 to Matsubara et al. (Matsubara). These rejections are respectfully traversed in view of the following comments.

In the invention, sensor 2 is separated from interface 21 by connecting line 22 but forms with it an inseparable unit 2, 22, 21 which can be connected with engine control unit 1 via the interface (plug connector 12) and lengthy connecting line 11.

Interface 21 includes an evaluating unit 211 which digitizes the sensor signals. Connecting lines 11 and 22 transport sensor signals from the sensor to the interface and other signals as well as heating current and air from the interface to the sensor as an oxygen reference. All other functional blocks are located in engine control unit 1.

Due to the spatial gap (approx. 30 cm) between interface 21 of the invention and the sensor and metallic housing 23, the interface 21 is exposed to lower temperatures than the sensor. Also, the interface 21 is insulated against moisture, which minimizes parasitic conductance and capacitance, and hence makes possible transmission of even the smallest measurement currents (e.g., 50 nA).

In contrast, Suzuki discloses a sensor 17 and control device 25 that form a compact unit, oxygen concentration detecting device 6, with functional blocks 67, 72, 68, 70 and 71, as shown in Suzuki's Figure 2, being contained in the control device 25 unit.

As pointed out in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim." "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Thus, for at least the above reasons, Suzuki fails to anticipate the combination of features recited in Applicant's independent claim 1. Accordingly, it is respectfully submitted that claim 1 is allowable and that the rejection of independent claim 1 should be withdrawn.

It is respectfully submitted that claim 2, which depends from claim 1, is also patentable over Suzuki for at least the same reasons as claim 1, and because Suzuki's digitizer is not integrated into a connector in Suzuki. Instead, Suzuki's digitizer 68 is integrated into the control unit 25.

Ohba is cited in the Office Action as allegedly teaching that it is known to provide a sensor interface circuit with a conductive casing for shielding. Even if Suzuki and Ohba could be combined, a proposition that Applicant does not accept, the combination would still not

overcome the above deficiencies of Suzuki. Moreover, motor control units and analyzer circuits (e.g., 25 in Suzuki's Figure 2) are generally placed in a shielded housing. This is in contrast to Applicant's claim 3, which recites *inter alia*, that the interface is arranged outside the control unit and its housing.

Similarly, Frankeny is cited in the Office Action as allegedly teaching that it is known to provide a circuit casing with a cooling flange, Maxwell is cited in the Office Action as allegedly teaching that it is known to provide a sensor assembly with waterproof connecting means, and Matsubara is cited in the Office Action as allegedly teaching that it is known to provide a sensor interface circuit with a shielded connecting line. However, even if Frankeny, Maxwell, or Matsubara could be combined, propositions that Applicant does not accept, none of these combinations would overcome the above deficiencies of Suzuki.

Claims 2-16 depend from independent claim 1, and therefore are allowable for at least the same reasons as claim 1, as well as for the additional features recited in the dependent claims. Thus, Applicants respectfully request that the rejection of the dependent claims also be withdrawn and the claims allowed.

In view of the foregoing remarks, Applicants respectfully request reconsideration of the application and timely allowance of the pending claims. Entry of this reply is respectfully submitted to be appropriate insofar as no additional claims are added, no new matter is added and no new issues are raised.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution of the application.

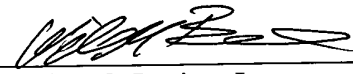
EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account



50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,
MORGAN, LEWIS & BOCKIUS LLP

Dated: September 10, 2002

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